

What is claimed is:

1. A structure for use in a field emission display including:
a substrate;
a multiplicity of emitters disposed over the substrate;
a dielectric layer disposed over the substrate;
a conductive grid layer disposed over the dielectric layer;
a conductor disposed between the substrate and the dielectric layer, the conductor being electrically coupled to at least one of the emitters, the conductor including a first portion comprising aluminum and a second portion comprising chromium.
2. A structure according to claim 1, the second portion of the conductor being disposed between the substrate and the first portion of the conductor.
3. A structure according to claim 2, the conductor further including a third portion comprising chromium, the third portion of the conductor being disposed between the dielectric layer and the first portion of the conductor.
4. A structure according to claim 1, the second portion of the conductor being disposed between the dielectric layer and the first portion of the conductor.
5. A structure according to claim 4, the conductor further including a third portion comprising chromium, the third portion of the conductor being disposed between the substrate and the first portion of the conductor.
6. A structure according to claim 1, the conductive grid layer including a first portion comprising aluminum and a second portion comprising chromium.

7. A structure according to claim 6, the second portion of the grid layer being disposed between the dielectric layer and the first portion of the grid layer.
8. A structure for use in a field emission display including:
 - a substrate;
 - a multiplicity of emitters disposed over the substrate;
 - a dielectric layer disposed over the substrate;
 - a conductor disposed between the substrate and the dielectric layer;
 - a conductive grid layer disposed over the dielectric layer, the conductive grid layer including a first portion comprising aluminum and a second portion comprising chromium, the second portion of the grid layer being disposed between the dielectric layer and the first portion of the grid layer.
9. A structure according to claim 8, the conductor including a first portion comprising aluminum and a second portion comprising chromium.
10. A structure according to claim 9, the second portion of the conductor being disposed between the substrate and the first portion of the conductor.
11. A structure according to claim 10, the conductor further including a third portion comprising chromium, the third portion of the conductor being disposed between the dielectric layer and the first portion of the conductor.
12. A structure according to claim 9, the second portion of the conductor being disposed between the dielectric layer and the first portion of the conductor.

13. A structure according to claim 12, the conductor further including a third portion comprising chromium, the third portion of the conductor being disposed between the substrate and the first portion of the conductor.

14. A structure for use in a field emission display including:
a substrate;
a dielectric layer disposed over the substrate, the dielectric layer defining a multiplicity of apertures;
a multiplicity of emitters, each of the emitters corresponding to one of the apertures, each emitter being disposed over the substrate within its corresponding aperture;
a conductive grid layer disposed over the dielectric layer;
a conductor disposed between the substrate and the dielectric layer, the conductor being electrically coupled to at least one of the emitters, the conductor including a first line, a second line, and a third line, at least a portion of the first line being disposed between the second line and the substrate, at least a portion of the third line being disposed between the second line and the dielectric layer, the second line comprising aluminum, the first and third lines comprising chromium.

15. A structure according to claim 14, wherein the conductive grid layer includes a fourth line and a fifth line, the fourth line being disposed between the dielectric layer and the fifth line.

16. A structure according to claim 15, wherein the fourth line comprises chromium.

17. A structure according to claim 15, wherein the fifth line comprises aluminum.

18. A structure for use in a field emission display including:
a substrate;
a dielectric layer disposed over the substrate, the dielectric layer defining a multiplicity of apertures;
a multiplicity of emitters, each of the emitters corresponding to one of the apertures, each emitter being disposed over the substrate within its corresponding aperture;
a conductive grid layer disposed over the dielectric layer, the conductive grid layer including a first line and a second line, the first line being disposed between the second line and the dielectric layer, the second line comprising aluminum, the first line comprising chromium.
19. A structure according to claim 18, further comprising a conductor, at least a portion of the conductor being disposed between the dielectric layer and the substrate.
20. A structure according to claim 19, wherein the conductor includes a third line; a fourth line, and a fifth line, the third line being disposed between the substrate and the fourth line, the fifth line being disposed between the dielectric layer and the fourth line.
21. A structure according to claim 20, wherein fourth line comprises aluminum.
22. A structure according to claim 20, wherein the third and fifth lines comprise chromium.
23. A field emission display including:

a faceplate;

a baseplate including;

a substrate;

a multiplicity of emitters disposed over the substrate;

a dielectric layer disposed over the substrate;

a lower conductor electrically coupled to at least one of the emitters, the lower conductor including a first portion comprising aluminum and a second portion comprising chromium;

an upper conductor disposed over the dielectric layer, the upper conductor including a first portion comprising aluminum and a second portion comprising chromium, the at least one emitter emitting electrons that travel towards the faceplate in response to voltages applied to the lower conductor, the upper conductor, and the faceplate.

24. A structure for use in a field emission display including:

a substrate;

a multiplicity of emitters disposed over the substrate;

a dielectric layer disposed over the substrate;

a conductive grid layer disposed over the dielectric layer;

a conductor disposed between the substrate and the dielectric layer, the conductor being electrically coupled to at least one of the emitters, the conductor including a first conductive material and a second conductive material.

25. A structure according to claim 24, a layer of the first conductive material being disposed between the substrate and the second conductive material.

26. A structure according to claim 24, a layer of the first conductive material being disposed between the dielectric layer and the second conductive material.

27. A structure according to claim 24, the first conductive material comprising chromium.

28. A structure according to claim 24, the second conductive material comprising aluminum.

29. A structure according to claim 24, the second conductive material comprising copper.

30. A structure for use in a field emission display including:
a substrate;
a multiplicity of emitters disposed over the substrate;
a dielectric layer disposed over the substrate;
a conductor disposed between the substrate and the dielectric layer;
a conductive grid layer disposed over the dielectric layer, the conductive grid layer including a first conductive material and a second conductive material.

31. A structure according to claim 30, a layer of the first conductive material being disposed between the second conductive material and the dielectric layer.

32. A structure according to claim 30, wherein the first conductive material comprises chromium.

33. A structure according to claim 30, wherein the second conductive material comprises aluminum.

34. A structure according to claim 30, wherein the second conductive material comprises copper.

35. A structure including:

a first layer of silicon-based material;

a first line disposed over the silicon-based material, the first line comprising chromium;

a second line disposed over the first line, the second line comprising aluminum.

36. A structure according to claim 35, further including a third line disposed over the second line, the third line comprising chromium.

37. A structure according to claim 36, further including a second layer of silicon-based material disposed over the third line.

38. An integrated circuit including a first layer of material comprising silicon, a second layer of material comprising silicon, a first device, a second device, and a conductor, the conductor electrically connecting the first and second devices, at least a portion of the conductor being disposed between the first and second layers of material, the conductor including a first part, a second part, and a third part, the first and third parts comprising chromium, the second part comprising aluminum, the first part being disposed between the first layer of material and the second part, the third part being disposed between the second layer of material and the second part.

39. An integrated circuit including a layer of material comprising silicon, a first device, a second device, and a conductor, the conductor electrically connecting the first and second devices, at least a portion of the conductor being disposed adjacent to the first layer of material, the conductor including a first part and a second part, the first part comprising chromium, the second part comprising aluminum, the first part being disposed between the layer of material and the second part.

40. An integrated circuit including a multiplicity of devices and a network of conductors electrically connecting selective ones of the devices, the devices and the conductors being disposed in a material comprising silicon, each conductor in the network comprising aluminum and chromium.

41. A structure including:

a first layer of material comprising silicon;

a conductor including a first line and a second line, the first line comprising a first conductive material, the second line comprising a second conductive material, the first line being disposed between the second line and the first layer of material.

42. A structure according to claim 41, further including a third line disposed over the second line, the third line comprising the first conductive material.

43. A structure according to claim 42, further including a second layer of material comprising silicon disposed over the third line.

44. A structure according to claim 41, wherein the first conductive material comprises chromium.

45. A structure according to claim 41, wherein the second conductive material comprises aluminum.

46. A structure according to claim 41, wherein the second conductive material comprises copper.

47. An integrated circuit including a first layer of material comprising silicon, a second layer of material comprising silicon, a first device, a second device, and a

conductor, the conductor electrically connecting the first and second devices, at least a portion of the conductor being disposed between the first and second layers of material, the conductor including a first part, a second part, and a third part, the first and third parts comprising a first conductive material, the second part comprising a second conductive material, the first part being disposed between the first layer of material and the second part, the third part being disposed between the second layer of material and the second part.

48. A circuit according to claim 47, wherein the first conductive material comprises chromium.

49. A circuit according to claim 47, wherein the second conductive material comprises aluminum.

50. A circuit according to claim 47, wherein the second conductive material comprises copper.

51. An integrated circuit including a layer of material comprising silicon, a first device, a second device, and a conductor, the conductor electrically connecting the first and second devices, at least a portion of the conductor being disposed adjacent to the first layer of material, the conductor including a first part and a second part, the first part comprising a first conductive material, the second part comprising a second conductive material, the first part being disposed between the layer of material and the second part.

52. A circuit according to claim 51, wherein the first conductive material comprises chromium.

53. A circuit according to claim 51, wherein the second conductive material comprises aluminum.

54. A circuit according to claim 51, wherein the second conductive material comprises copper.

55. An integrated circuit including a multiplicity of devices and a network of conductors electrically connecting selective ones of the devices, the devices and the conductors being disposed in a material comprising silicon, each conductor in the network comprising a first conductive material and a second conductive material, the first conductive material preventing at least a portion of the second conductive material from contacting the material comprising silicon.

56. A circuit according to claim 55, wherein the first conductive material comprises chromium.

57. A circuit according to claim 55, wherein the second conductive material comprises aluminum.

58. A circuit according to claim 55, wherein the second conductive material comprises copper.